

## CURRENT REPEATER

KM Ex LP CR-LL is a loop powered unit repeating an active current signal of 4-20mA flowing in a hazardous area accurately into a non-hazardous area.

Input and output circuits are galvanically isolated and do not require high integrity common earthing.

## FEATURES :

- \* Manufactured according to European standard EN 50014 and EN 50020.
- \* Input circuit is galvanically isolated from both input and output control circuitry - **1500V, 50Hz**.
- \* Repeats a 4-20 mA analog current from a active current source from field area to safe area.

## OPERATION :

The unit is loop powered .

The input signals (current) should be connected at the terminal 3(+) & 1(-). In the hazardous area and the same current is repeated very accurately with the same polarity across the output terminals 7(+) & 8(-) into the non-hazardous area / safe area.

Low loss, precision torroidal transformers between the hazardous area and non-hazardous area circuits ensure a minimum loss in energy.

## APPLICATIONS :

To isolate and repeat 4-20mA DC current incoming signal from hazardous to non-hazardous area **without having to run an extra 24V power cable**.

**MOUNTING :** On a customer's PCB.

## TECHNICAL DETAILS

### ART. NO. : [KDA001]

#### Power Supply Section

Via 4-20mA  
Signal energy.  
4-20mA ACTIVE  
Minimum input current being sensed  
20µA  
Load across terminals 7(+) & 8(-)  
0-500 Ohm

**Hazardous /Field Area Section** Terminals 3(+), 1(-)

#### Non Hazardous / Safe Area Section

Terminals 7(+) & 8(-)

#### Parameters

Voltage  $U_0$  15V  
Current  $I_k$  20mA  
Max. Voltage Drop 4V

#### Permissible External Circuit Values

	IIC	IIB
Maximum External Capacitance	1.3µF	4.5µF
Maximum External Capacitance	2.2mH	10mH
Output (Terminals 7 & 8)	4-20mA	

#### Transfer Characteristics

Calibrated Accuract at 20°C  $\pm 0.1\%$  of full scale  
(20mA)

Galvanic Insulation Tested at 1500V, 50Hz  
(Between hazardous and non hazardous area terminals)

**Max. Ambient Temperature** +60°C

- \* Input 4...20mA (Active)
- \* Output 4-20mA

